

Sturgeon Management Plan Advisory Committee Meeting

*Stevens Point, WI
September 27, 2018*

DNRSturgeonPlan@wisconsin.gov





Work with DNR staff to develop the framework for a new Sturgeon Plan

- Visit our website: <http://dnr.wi.gov/topic/Fishing/sturgeon/SturgeonManagementPlan.html>
- Send us comments to our dedicated email address:
DNRSturgeonPlan@wisconsin.gov
- Join the Gov Delivery list (by providing your email address on the sign up sheet today) or following the link on our website



Agenda

- Introductions – Advisory Committee members
- Debrief August 27th Meeting
- History of regulation
- District overview of sturgeon management
- Discuss and approve vision statement
- Summary of break out session #2
- Break
- Break out session #1
- Break out session #2

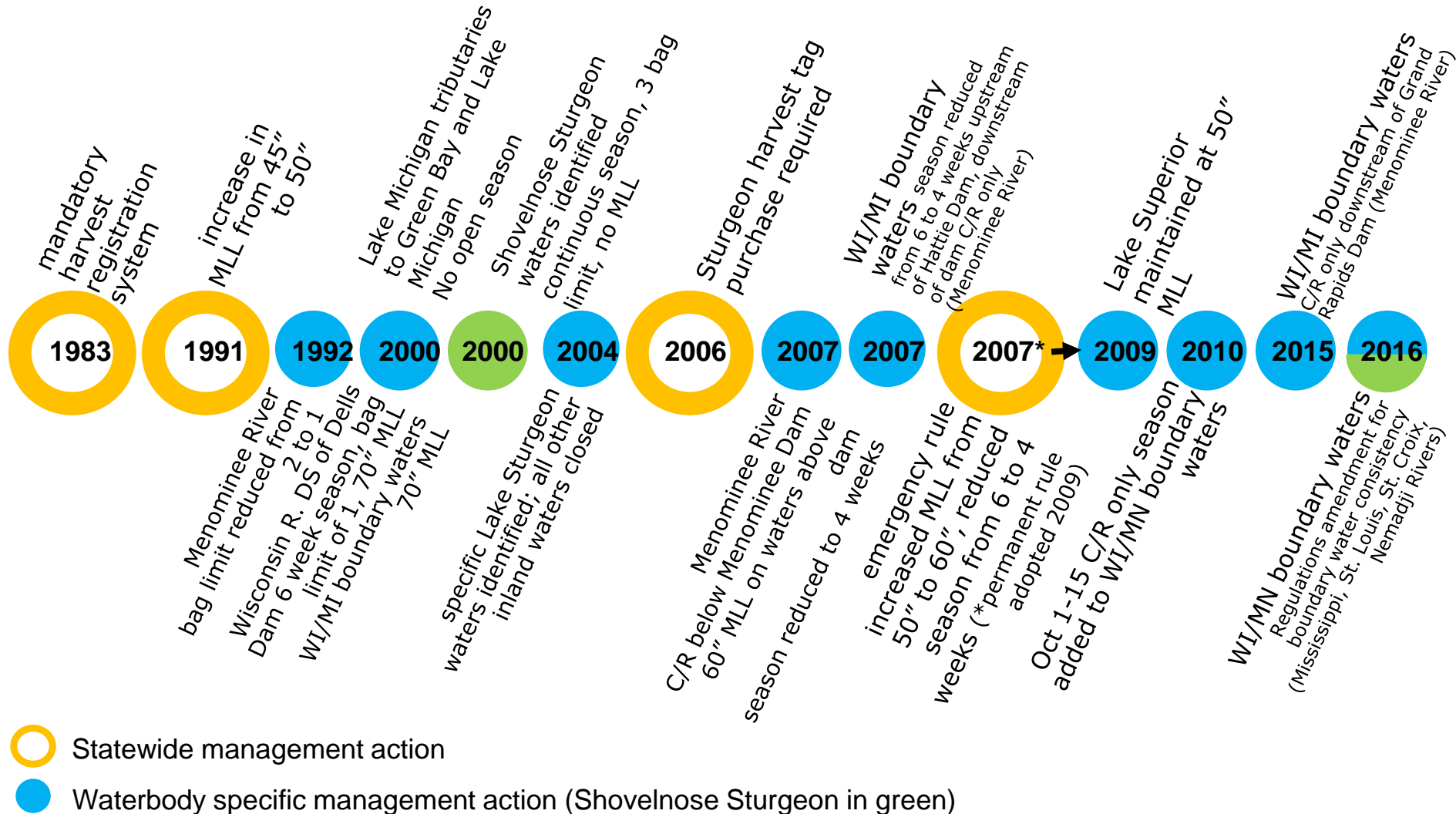



August 27th Meeting

- Minutes distributed via email on September 14
- Things that went well and not so well?



Sturgeon Hook and Line Harvest Management Action Implementation Timeline

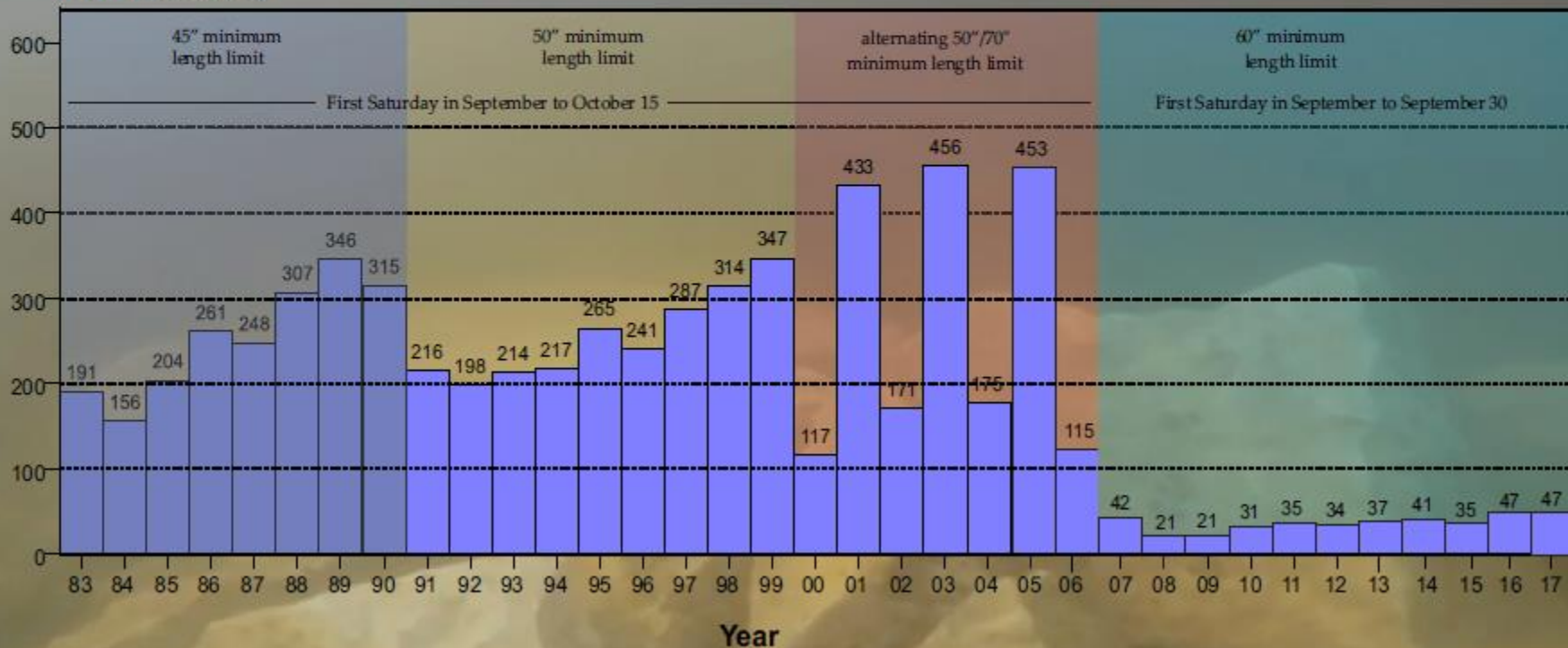




Statewide Sturgeon Harvest, 1983-2017

All Hook and Line Fisheries

Fish harvested





Hook and line lake sturgeon harvest for 2006-2017															
(60" minimum length limit implemented in 2007)															
Water		Year	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Total
St. Croix River			0	2	2	0	0	0	1	0	0	2	0	0	7
Wisconsin River			2	13	2	6	10	15	12	10	6	10	10	8	104
Chippewa River			57	4	11	6	9	13	12	14	19	4	9	18	176
Flambeau River			65	6	3	4	7	5	3	8	12	7	8	11	139
Yellow Lake			10	10	0	1	4	0	1	2	0	1	4	2	35
Menominee River			1	1	1	3	1	1	1	2	0	2	0	0	13
Lake Superior			0	1	2	1	0	1	4	1	4	12	16	8	50

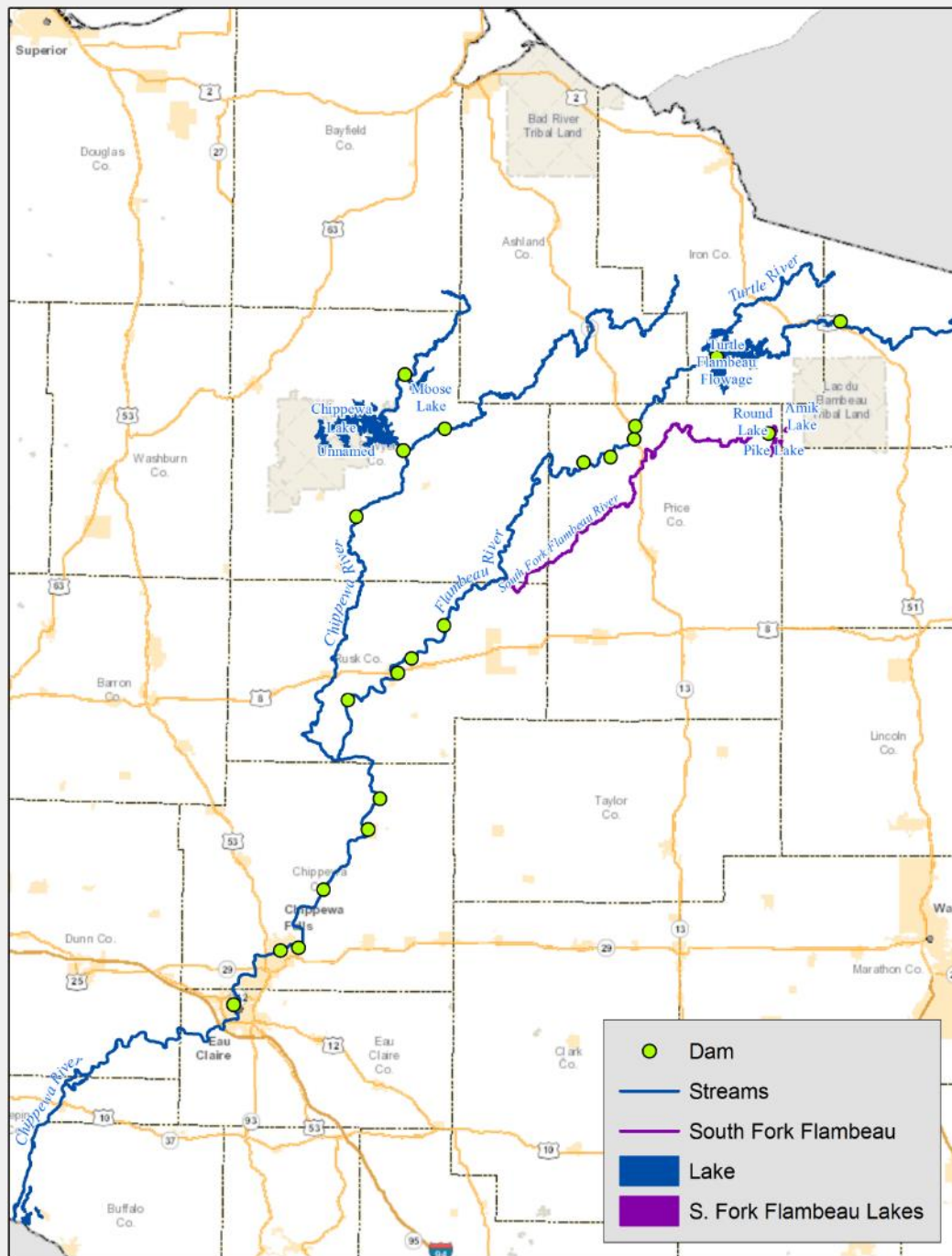
District Management Overview





North District









**East Fork Chippewa River
Sawyer County, WI**

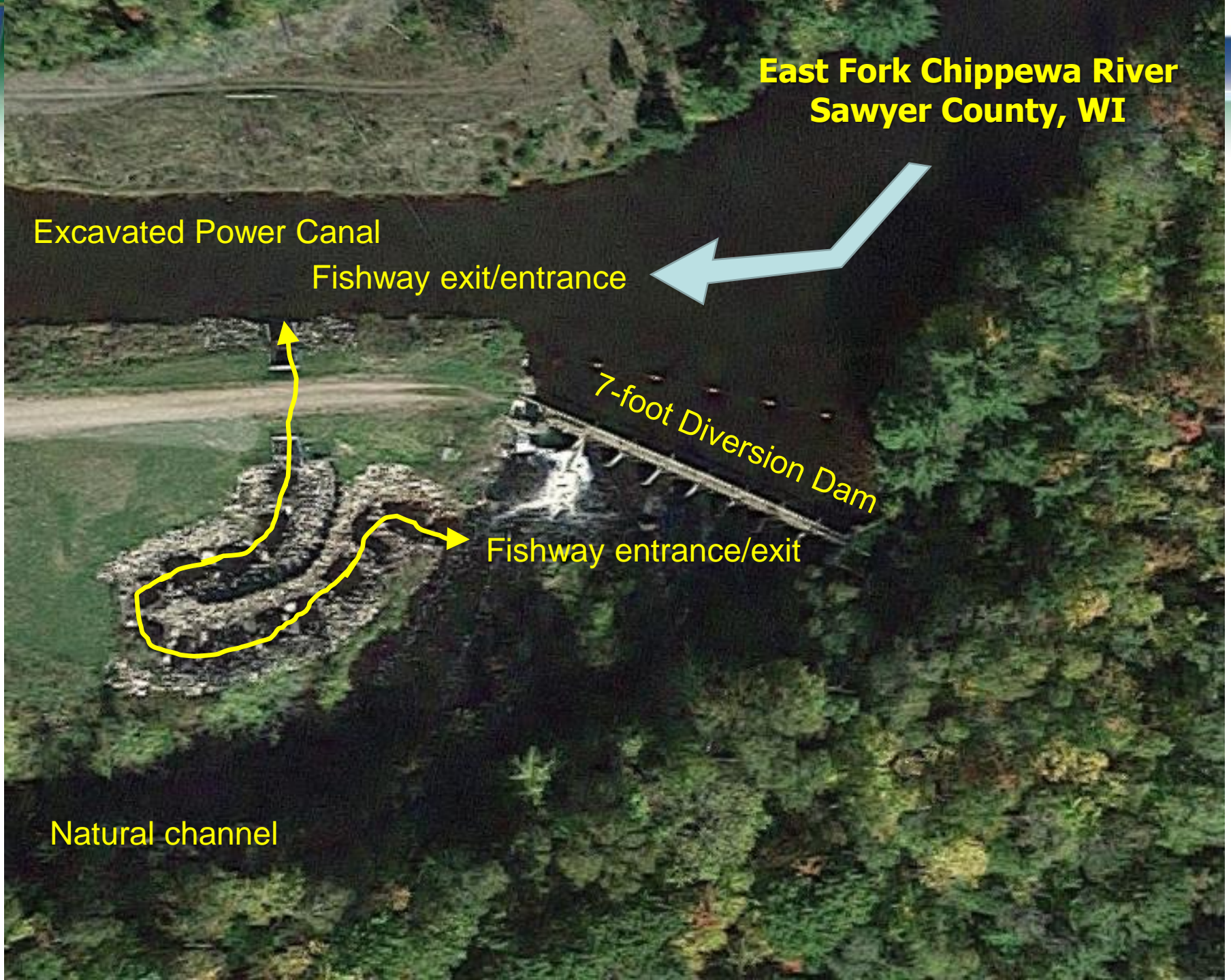
Excavated Power Canal

Fishway exit/entrance

7-foot Diversion Dam

Fishway entrance/exit

Natural channel

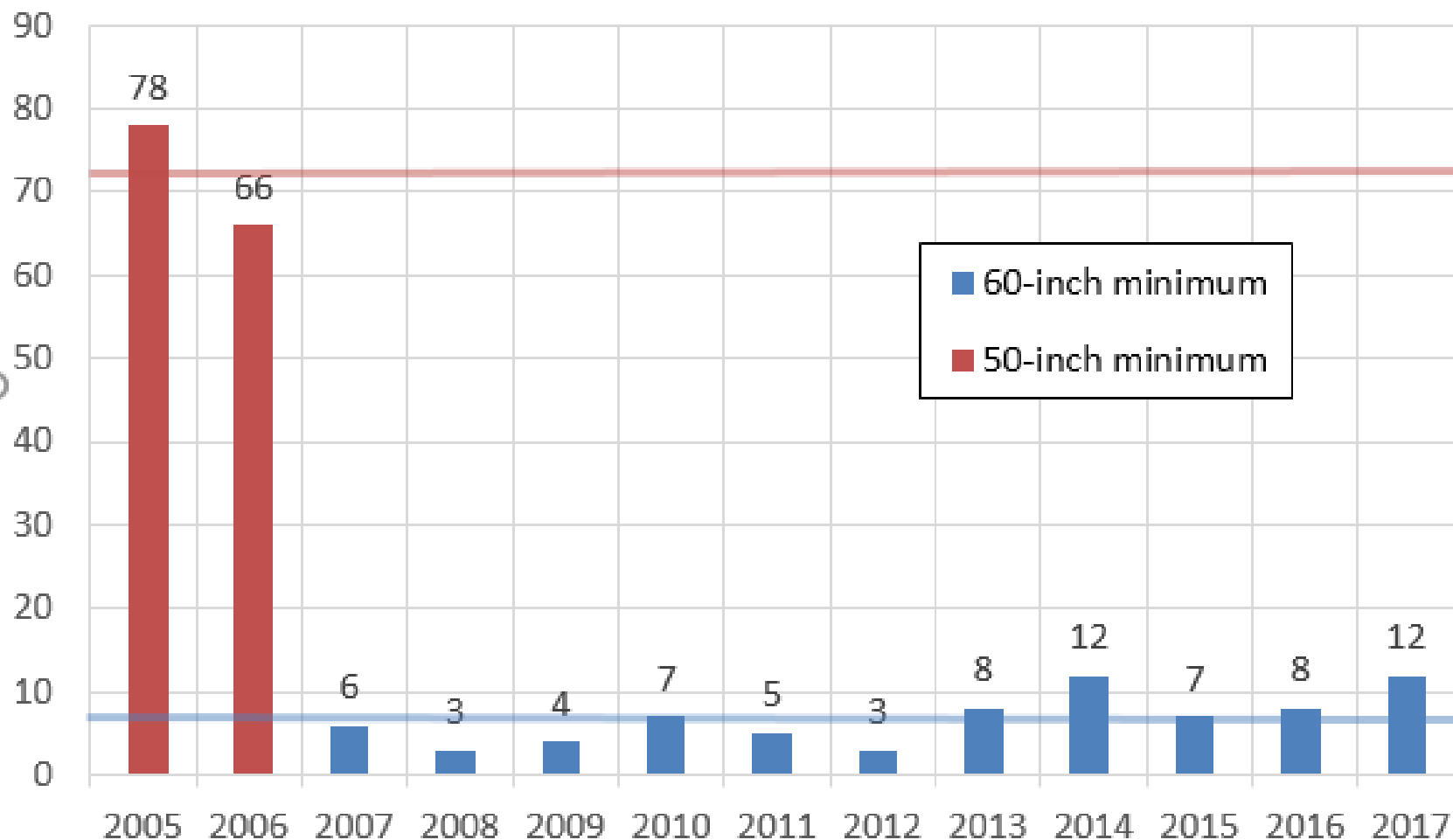




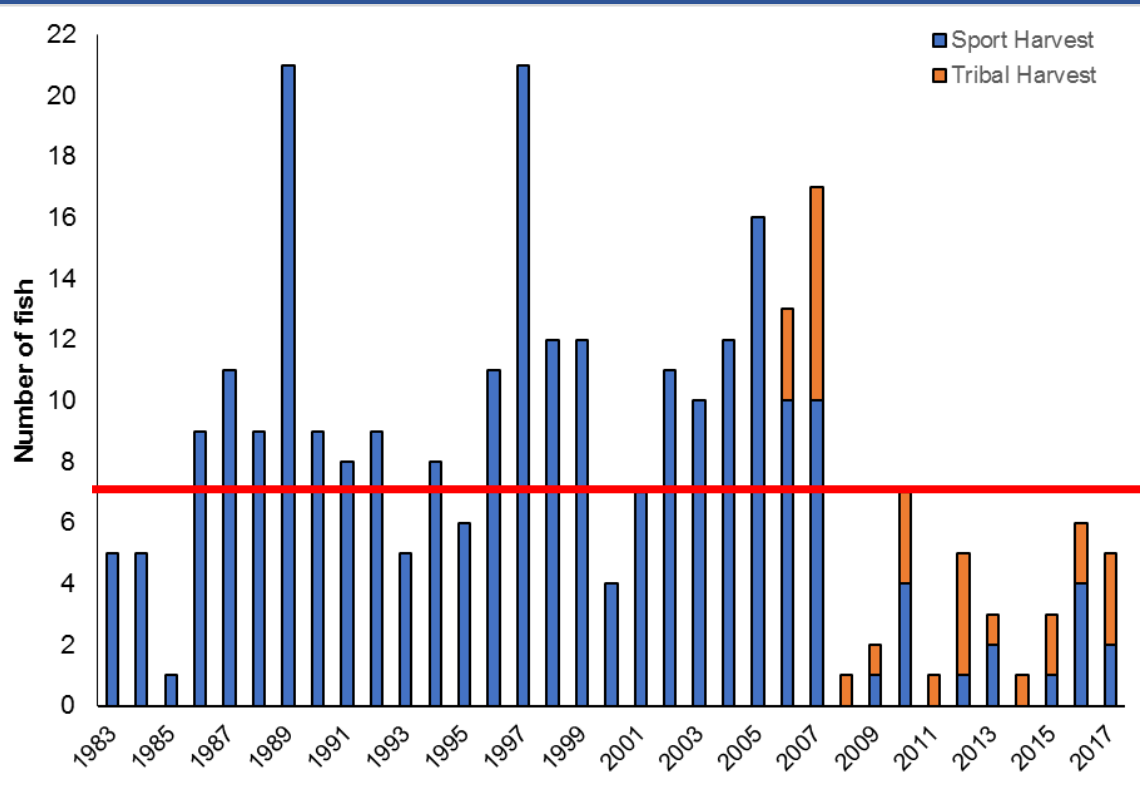
Local Sturgeon Fisheries

Chart Area

Hook & Line Sturgeon Harvest--Upper Chippewa River Basin



YELLOW LAKE HARVEST

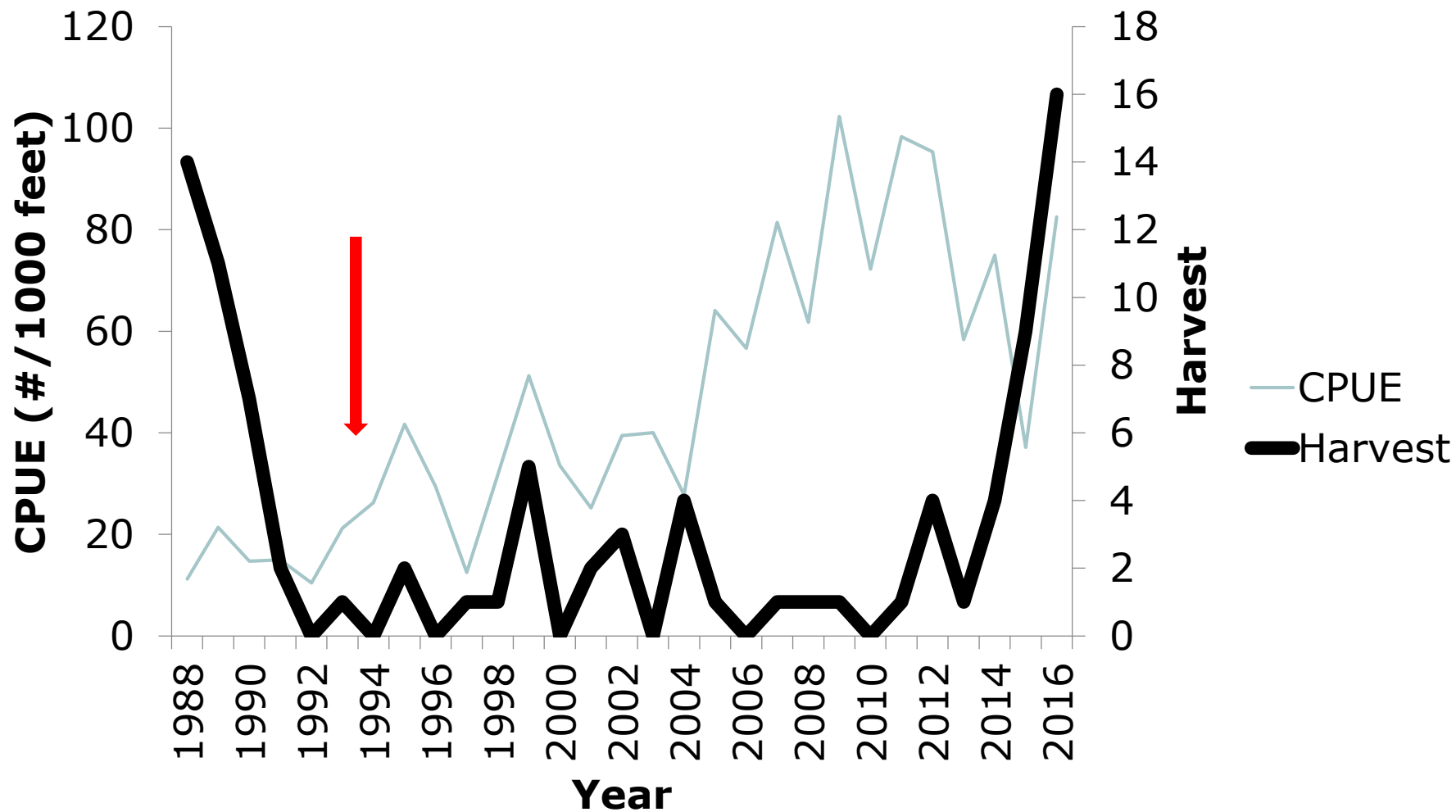


- Long-term harvest - 7 fish/year
- Post 60" minimum – 2 fish/year
- Tribal harvest since 2005 – 2 fish/year
- Split quota of 15 fish per season

Yellow River Egg Collection



Lake Superior Sturgeon Assessment





Lake Superior Sturgeon

- Population has increased since the change from 40" min size limit to current 50"
- Anglers have increased harvest and appear to be more successful
 - Advisory question at spring 2018 WCC meetings on a potential regulation change (increase minimum length to 60")



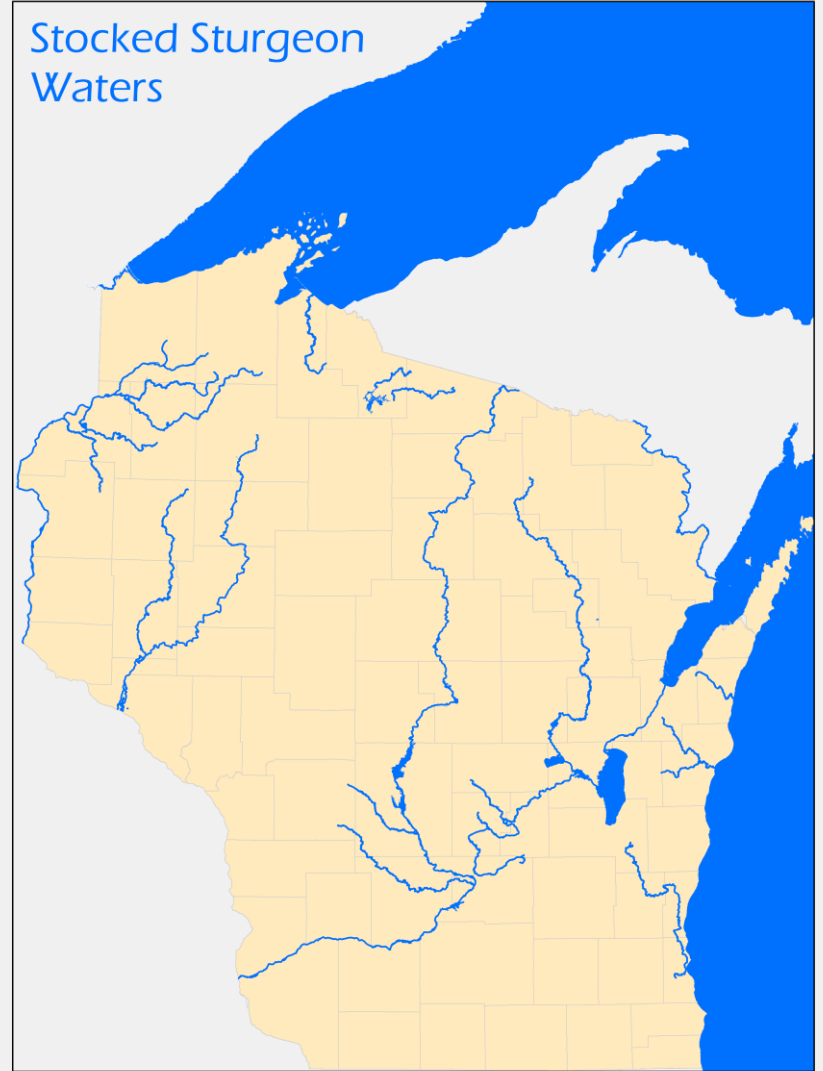
South District

Lake Sturgeon Distribution in Wisconsin

Sturgeon Waters
Pre-Settlement



Stocked Sturgeon
Waters



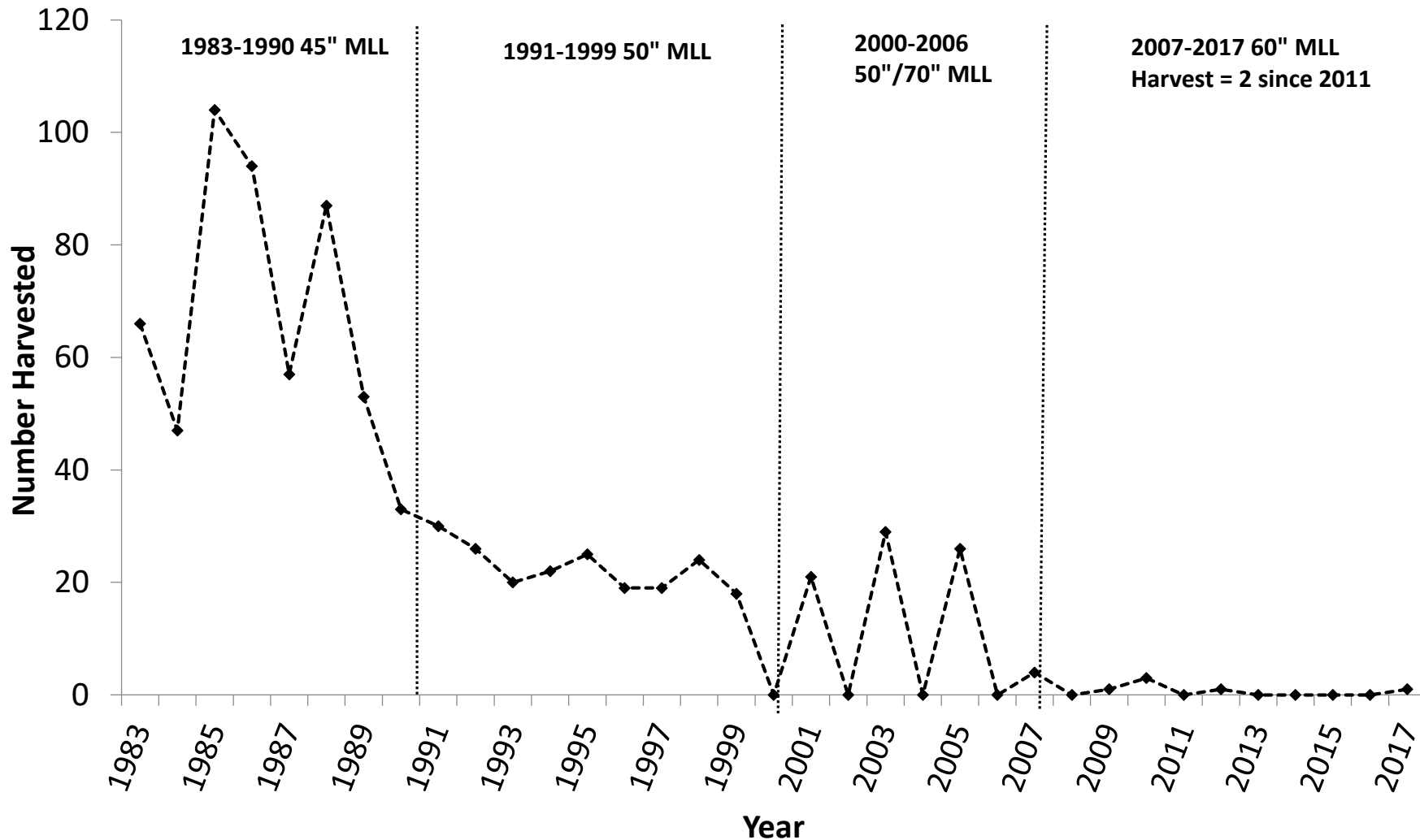
Lake Wisconsin Lake Sturgeon

- Lake Wisconsin
 - 1,600 adults $\geq 50''$ (1981, 2008)
 - Self-sustaining, stable
 - Spawn below Kilbourn Dam
- H&L Season
 - September
 - 60" MLL, 1 fish/season bag
 - Decreasing harvest 1980s-present, C&R





Lake Wisconsin Sturgeon Harvest



Lake Wisconsin Lake Sturgeon

- Brood fish for rehabilitation
 - MWR 1998-Present
 - Baraboo River 2010-Present
 - Alliant Energy Partners
- Adult collections
 - April-May ~53-60°F
 - Spawned at Kilbourn Dam, adults released
 - Eggs → Wild Rose
 - Surplus → Dells



Baraboo River Sturgeon Rehabilitation

- Last of 13 dams removed 2001
- First stocking July 2010
- 500 yearlings annually
- All fish after 2010 marked with PIT tags
- Habitat enhancements: rip-rap shoreline



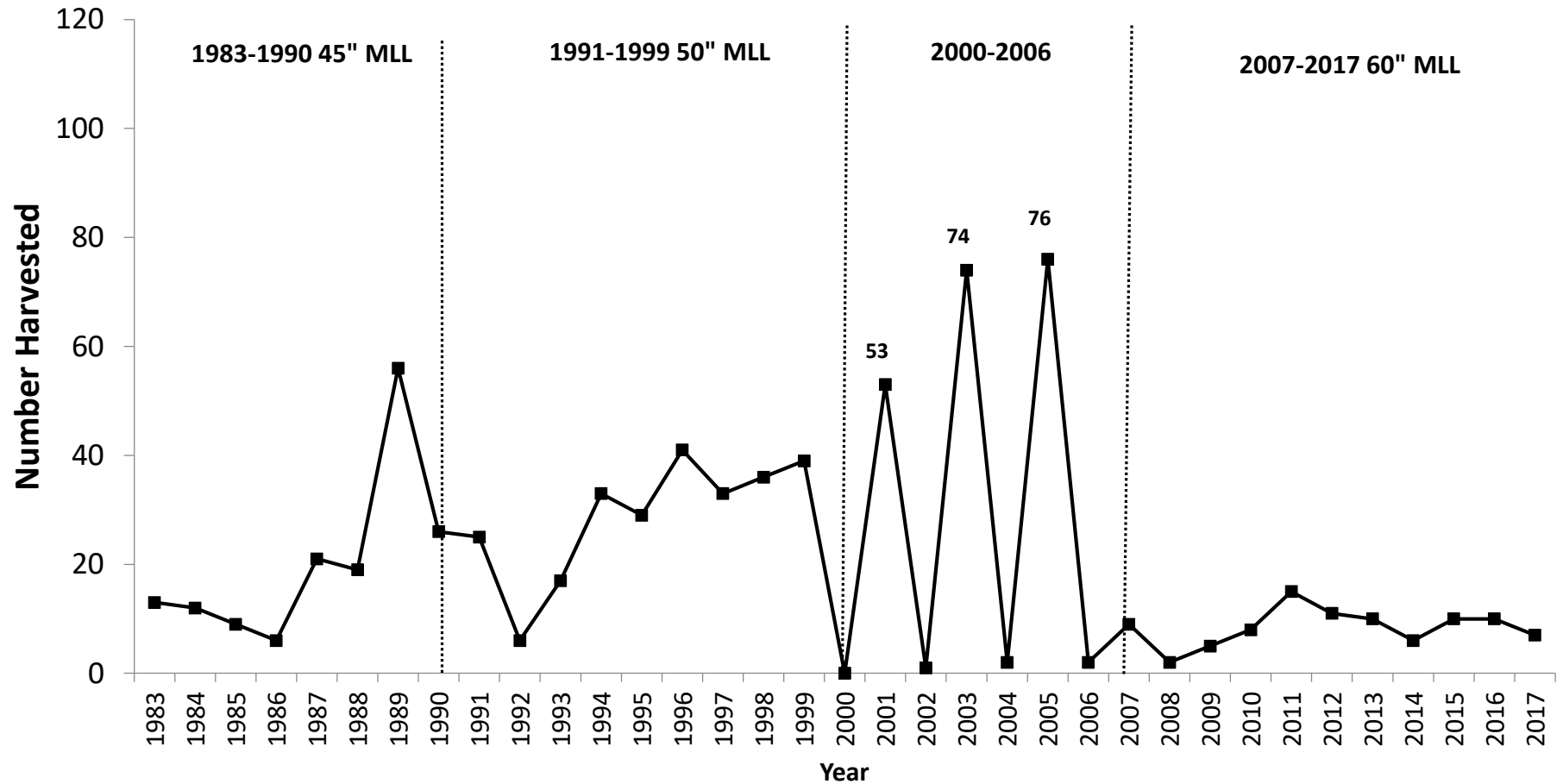
Lower Wisconsin River Lake Sturgeon

- Prairie du Sac Dam
 - 100-315 adults $\geq 50''$ each fall (PE survey)
 - Natural reproduction? Priority research need
 - Downstream passage
 - Utilize MR and tribes
- Hook and Line Season
 - September
 - 60" MLL, 1 fish/season bag
 - Harvest average 8 fish/yr. since 2007

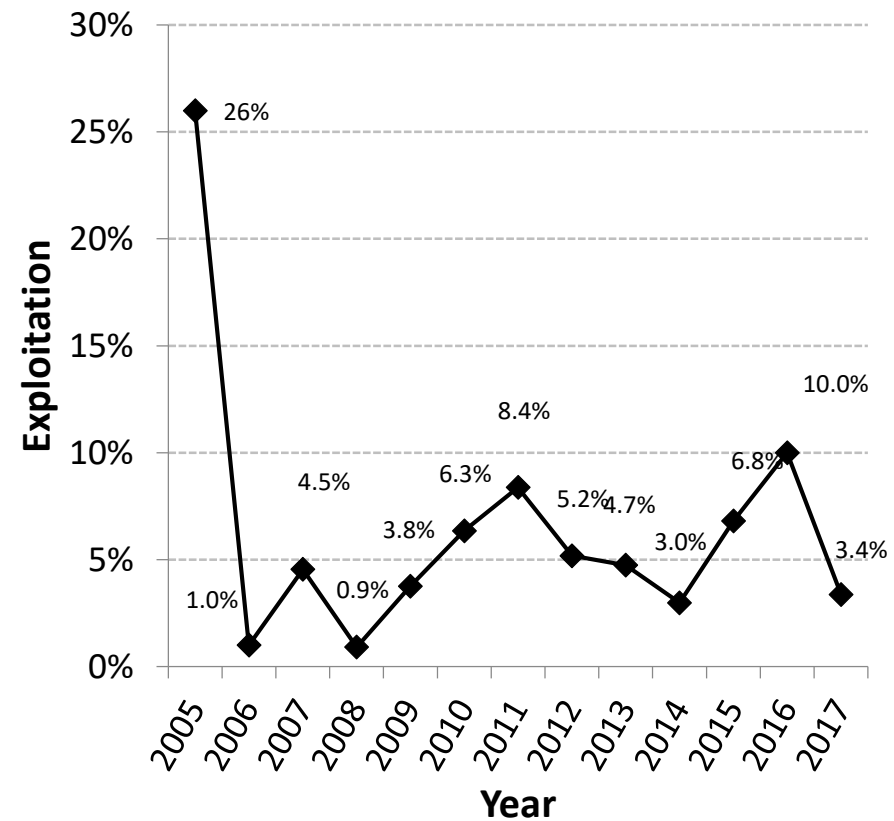
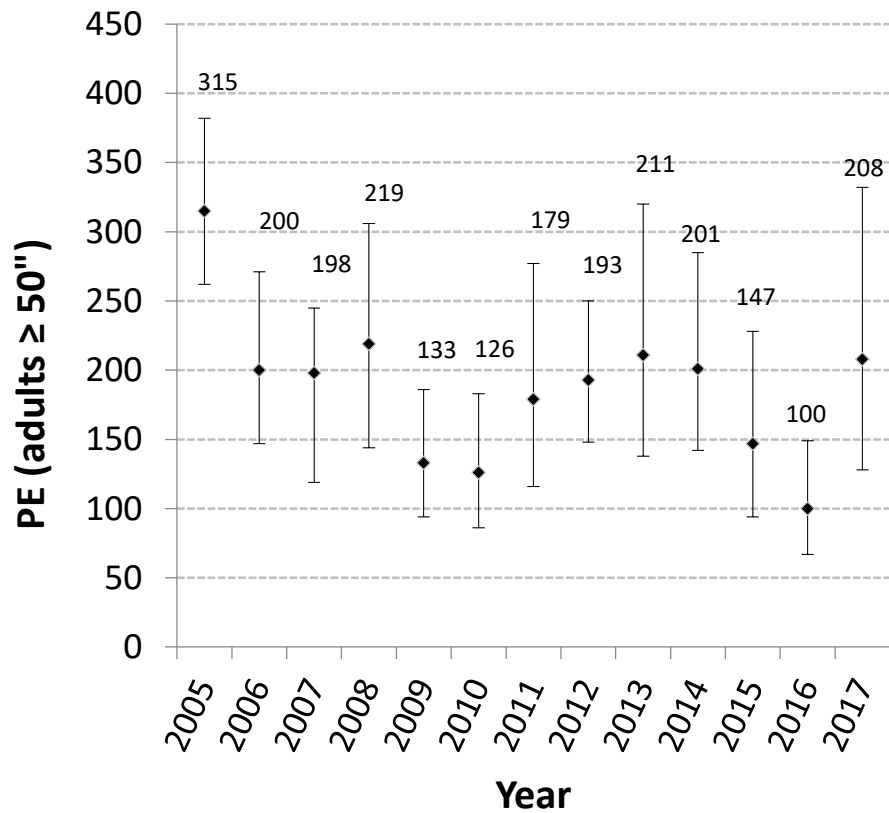




Prairie du Sac/Lower Wisconsin River Harvest

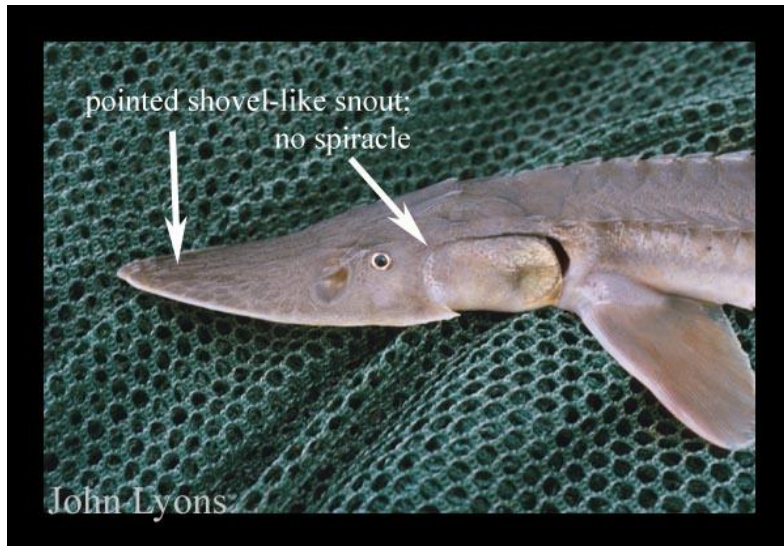
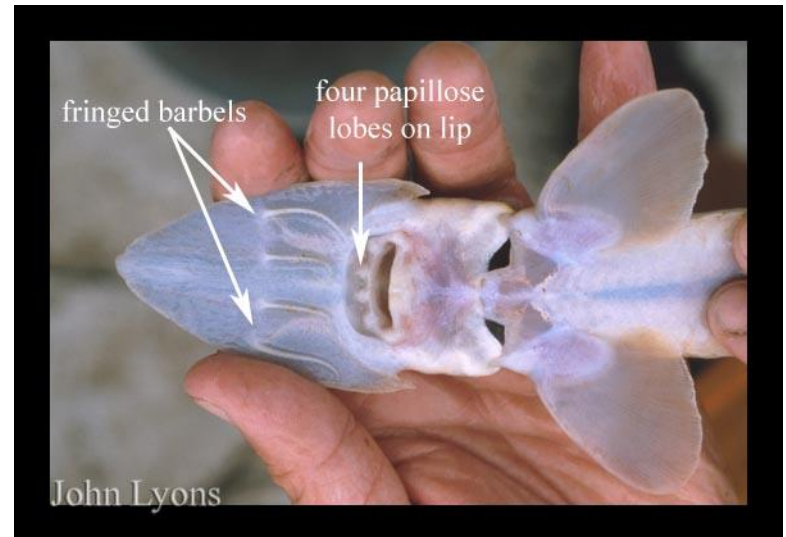


Lower Wisconsin River-Lake Sturgeon Population Size and Exploitation

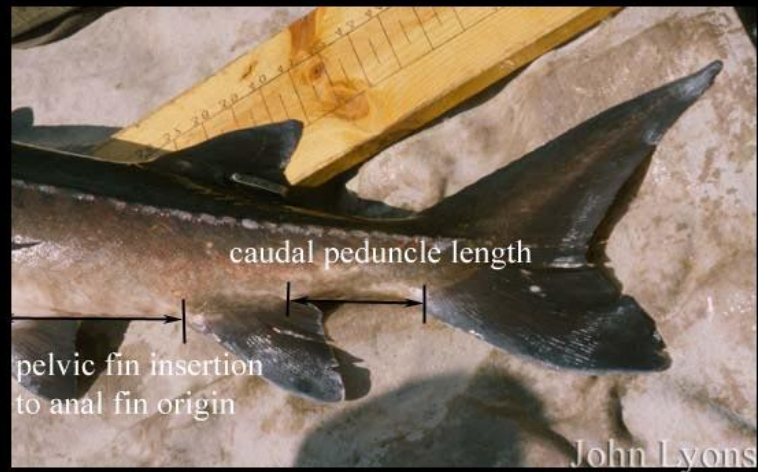
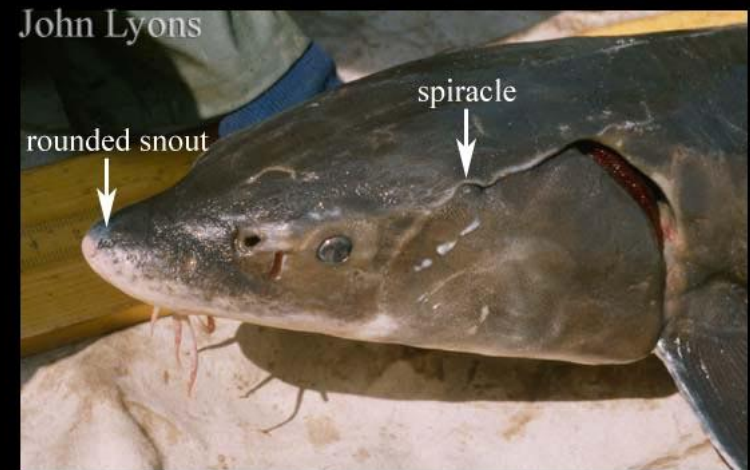
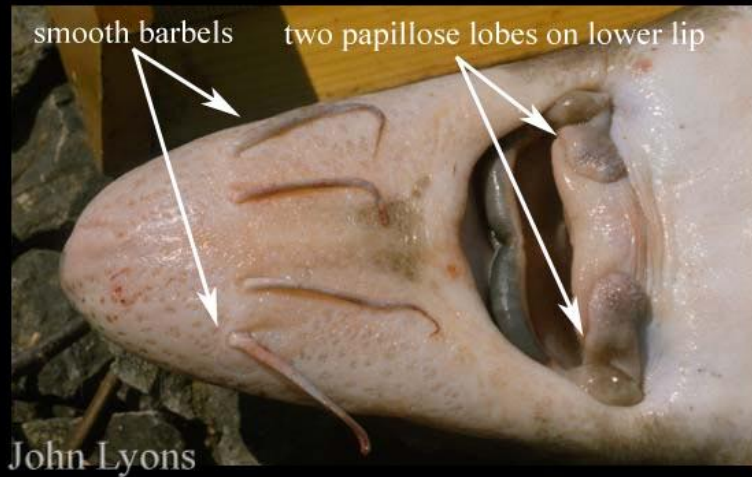


Shovelnose Sturgeon aka "Sand Sturgeon" or "Hackleback"

- Distinguishing characteristics
 - Barbles (fringed/not)
 - Lobes on lip (4 vs. 2)
 - Spiracle
 - Caudal peduncle length



Lake Sturgeon vs. Shovelnose Sturgeon Characteristics



Wisconsin River Shovelnose Sturgeon

- Extirpated above Prairie du Sac Dam
 - Habitat fragmentation
 - Water quality
- Self-sustaining in Lower Wisconsin River
 - Continuous H&L season
 - No MLL, 3 bag, sport only
 - Similarity to LKS
- Managed by WDNR Dodgeville
 - Spring EF survey
 - Spawning aggregations



Madison Lakes-Remnant Lake Sturgeon

- Lake Monona
 - 2016 (2); 1 live, 1 dead
- Lake Mendota
 - 1 dead fish in 2017
- Genetic Testing
 - 2016 Monona fish=MR Drainage...1930s stocking from LM drainage
 - Results pending on 2017 Mendota fish
- Sturgeon are protected in the Madison Lakes
 - No open fishing season





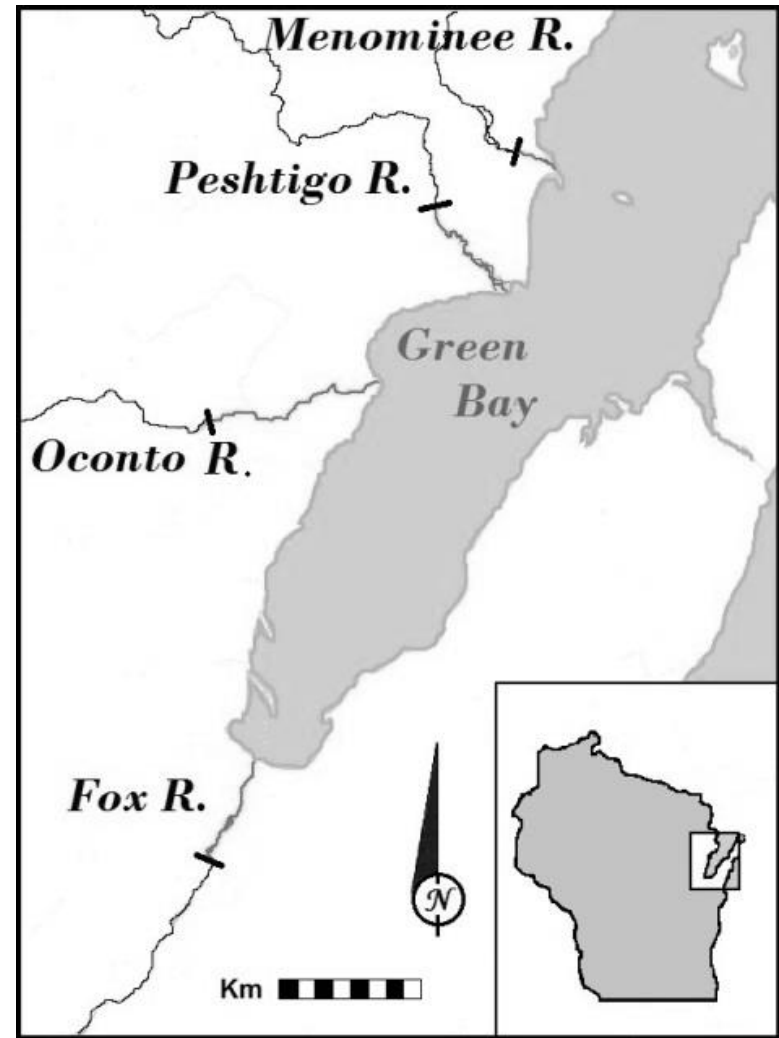
East District

Green Bay Lake Sturgeon Management

I'm responsible for managing the lake sturgeon populations in Green Bay, its tributaries and all of the Menominee River.

We co-manage the Menominee River fisheries with the State of Michigan.

We are working cooperatively in restoring these populations with other agencies.



Management Issues

- Increasing recruitment for Green Bay populations,
- Evaluating restoration of stocks in Upper Menominee,
- Support continued research on hook and line mortality, Fox R recruitment and Menominee fish passage,
- Survey spawning activity, habitat management and investigate illegal harvest.



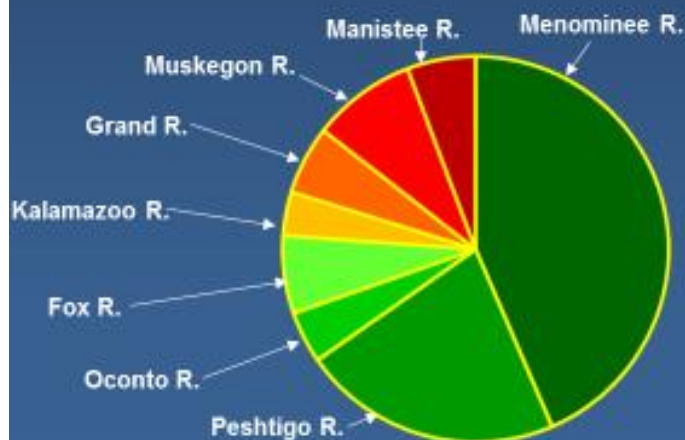
Lake Sturgeon Population Status

○ Presumed Historic Distribution

● Known Spawning Populations

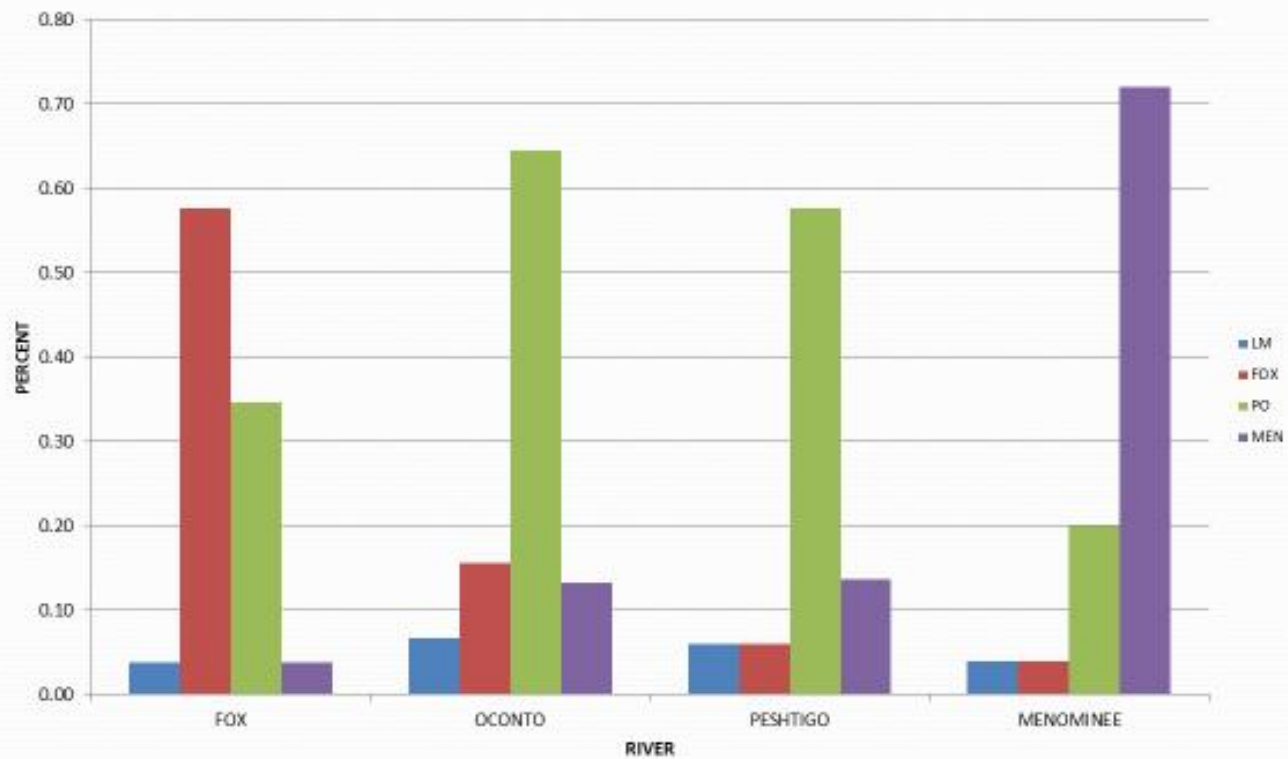
Estimated Spawning Abundance

(1,950 in all L. Michigan Rivers combined)





2011-15 Distribution of Genotypic Assignments for Lake Sturgeon from Green Bay Rivers (N= 162)





Menominee River Sturgeon

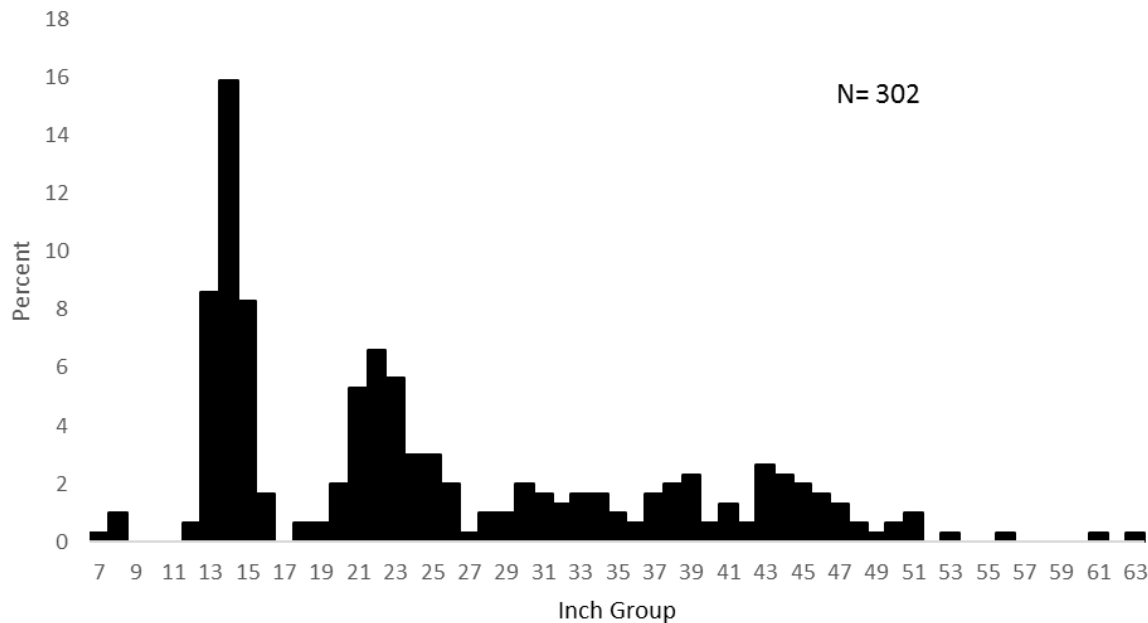
- The Menominee River is managed as 4 sections (Sturgeon Falls, White Rapids, Grand Rapids and Lower Menominee).
- Sturgeon entering the Lower Menominee have access to Green Bay while the other populations are “landlocked” because of the hydro dams.
- White Rapids and Grand Rapids are sustained populations through natural recruitment.
- Sturgeon Falls population is being restored through stocking which began in 1982.

Menominee River Sturgeon Populations

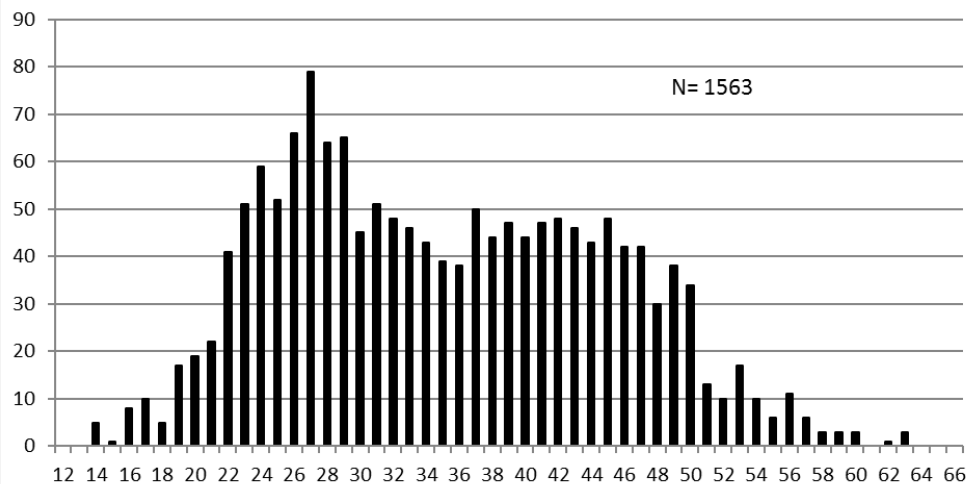


Menominee River Sturgeon Populations

Lake Sturgeon Length Frequency
Sturgeon Falls, Menominee River, 2007-17



**Lake Sturgeon Length Frequency in
White Rapids, Menominee River, 2000-2015**



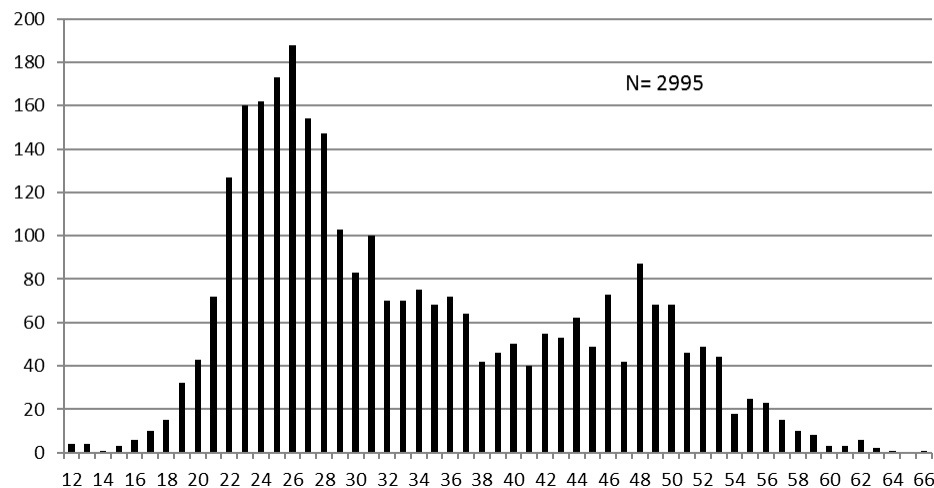
Population Estimates- WR

All Fish	4,082
Fish 50" and larger	422

Population Estimates- GR

All Fish	3,922
Fish 50" and larger	293

**Lake Sturgeon Length Frequency in
Grand Rapids, Menominee River, 1999-2013**





Hook and Line Fisheries

- Peshtigo, Oconto, and Fox Rivers were open to harvest until 1999 but only one harvested sturgeon was registered from these rivers before that year.
- Michigan and Wisconsin have allowed hook and line fishing on the Menominee river since 1946.
- Mandatory registration began in 1983.
- From 1983-2005, 1,690 adult sturgeon were registered (527 White Rapids, 235 Grand Rapids, and 928 below Menominee Dam).



Hook and Line Fisheries

- The States have modified the regulations over the years to promote sustainability of these populations.
- In 2006, we closed the waters below Menominee Dam to harvest because of impacts on smaller, mixed populations in the Lake Michigan basin,
- We also increased the minimum size limit to 60 inches and shortened the season because of concerns about over-exploitation,
- In 2016, we closed the fishery below Grand Rapids dam to protect the adults passed above the lower 2 dams.

Local Sturgeon Information

- We'll continue to conduct assessments on area rivers and Green Bay populations,
- We'll support research on the genetics and movements of adult and juvenile sturgeon, and
- We'll manage these sturgeon populations to promote restoration.

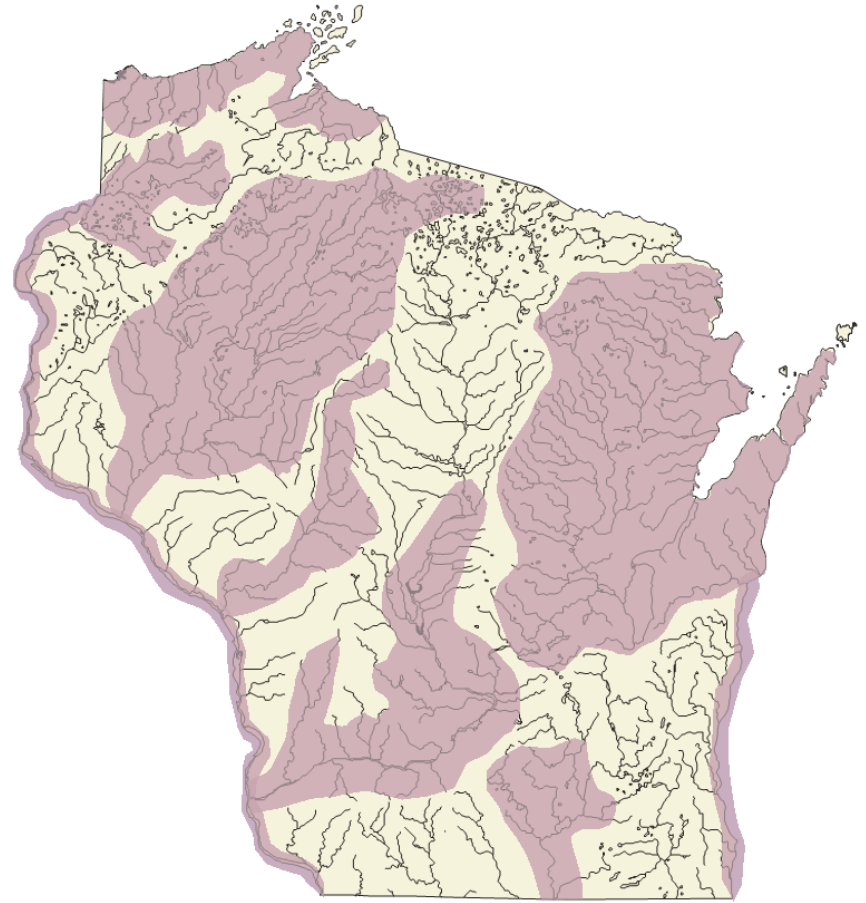




West District

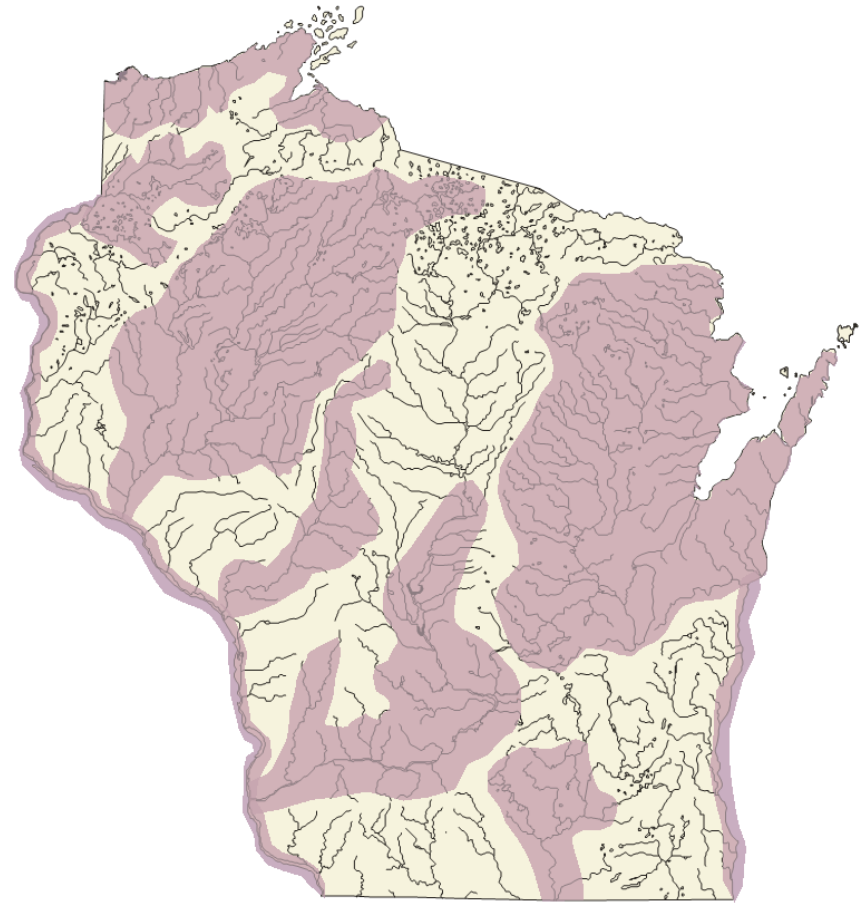
Western District Sturgeon Fishing Opportunities

- WI-MN boundary waters
 - **C&R Season**
 - Above Red Wing Dam (Miss. R./St. Croix) - June 16-March 1 – Lake and Shovelnose
 - Below Redwing Dam (Miss. R.) - June 16-April 14
 - **Harvest Season**
 - Lake Sturgeon - St. Croix River – Downstream of St. Croix Falls Dam
 - First Saturday in Sept.-Sept. 30. – 60" min
 - Shovelnose – Miss. R. below Redwing Dam
 - Year round – 10 fish bag limit

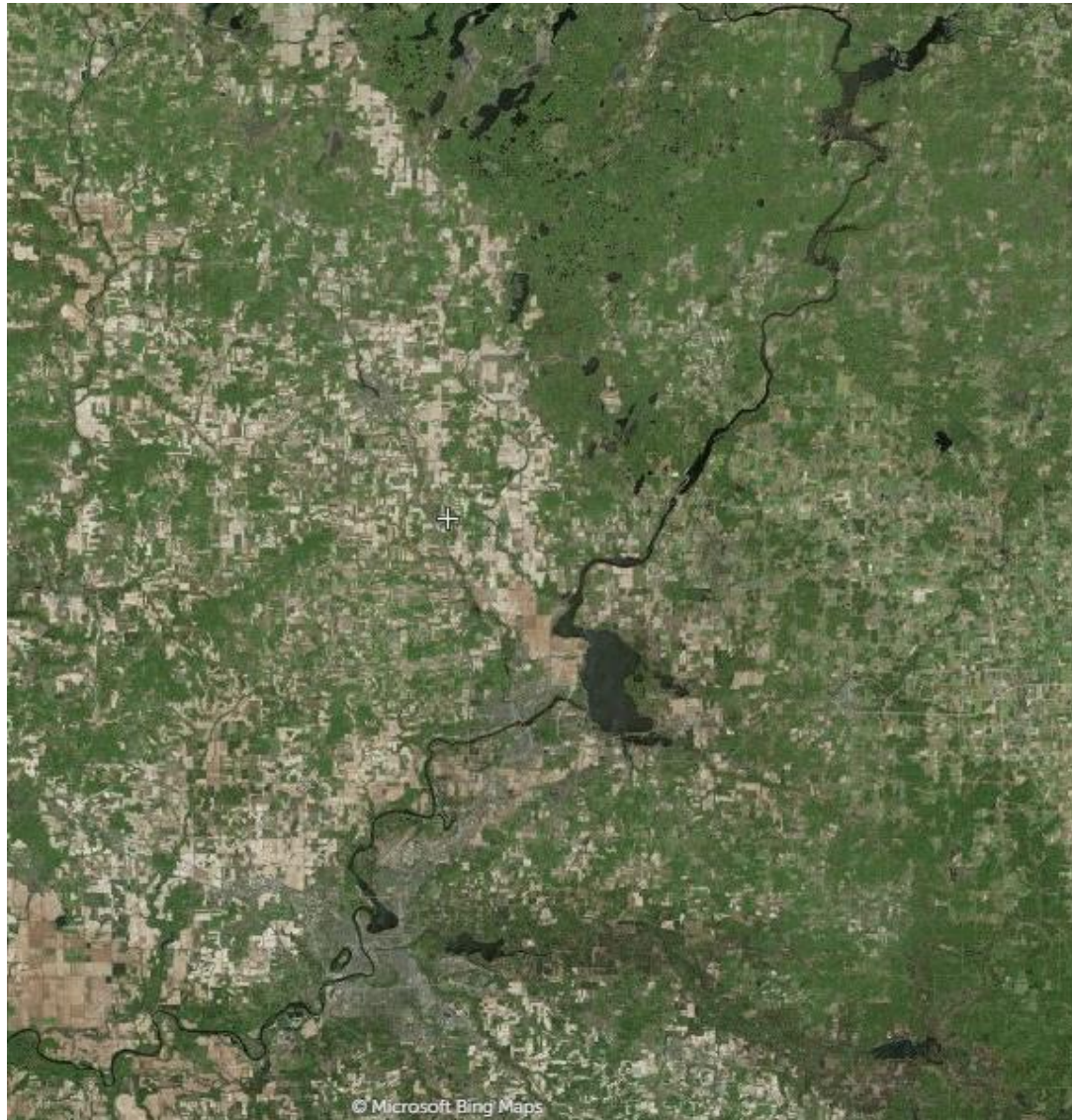


Western District Sturgeon Fishing Opportunities

- Inland waters – No open season
 - Red Cedar River
 - Lower Black River
 - Middle Wisconsin River
- Inland waters - Open season
 - Chippewa River
 - Minimum length limit: 60"
 - Season: First Saturday in Sept.-Sept. 30th
 - Bag limit: 1 per season



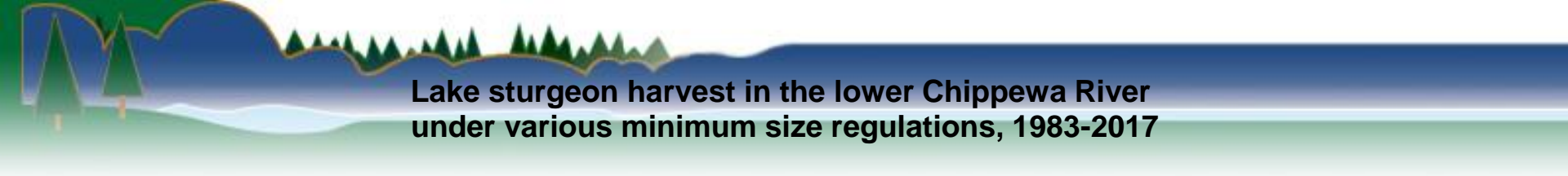
Lower Chippewa River Impoundments



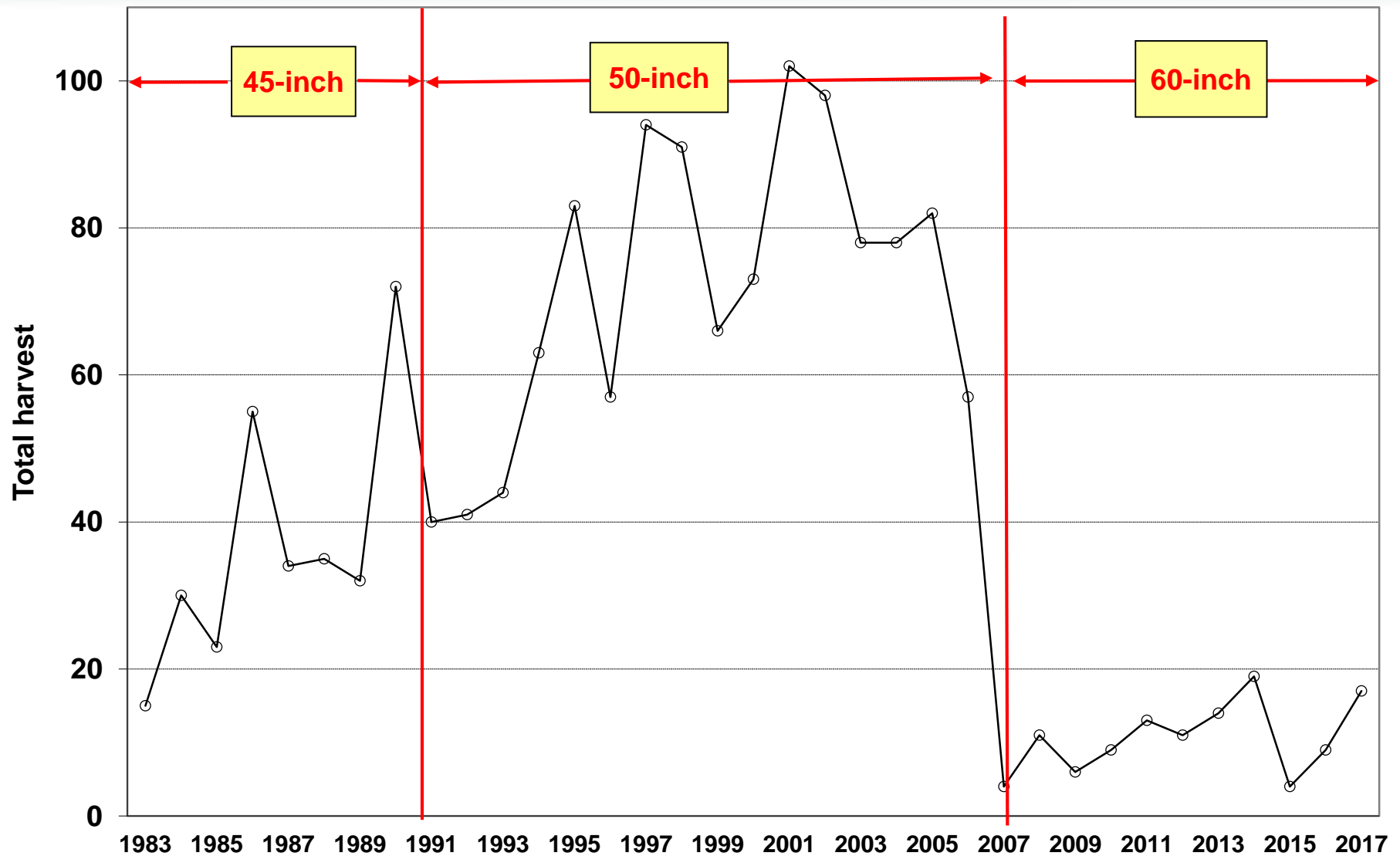
Lake Sturgeon Registration

- Tag must be validated
- All sturgeon must be registered in person at a registration station no later than 6pm the day after the catch





Lake sturgeon harvest in the lower Chippewa River under various minimum size regulations, 1983-2017



St. Croix River Lake Sturgeon Harvest

- Low - Since 2007 it has varied from 0-2 fish with the total harvest of 7 fish over the past 11 years





Lake Sturgeon Assessments

- Gillnetting survey downstream of Dells Dam
 - Prespawn
- Dip-netting survey at Jim Falls During active spawning
- Gillnetting downstream of Wissota Dam, Holcombe Dam and Jim Falls Powerhouse
 - Post-spawn
- Hook-and-line survey downstream of Dells Dam
 - Juvenile Assessment



Data Collected

- Collect biological data
 - Length, weight, sex
- Collect tagging information
- Floy Tag
- PIT tag fish
- Section of Fin Ray



















Lake Sturgeon Movement/Genetics

- PIT tag #: 43600F1447
 - 10/20/1999 – Chippewa River – Jim Falls Dam – 48.5" 21.5lbs
 - 6/21/2016 – Chippewa River – Jim Falls Dam – 50.9" 28.3lbs
- PIT tag #: 430E457C21
 - 10/20/1999 – Chippewa River – Jim Falls Dam – 55.8" 32.5lbs
 - 5/09/2003 – Chippewa River – Jim Falls Dam – 56.8" 32.1lbs
 - 6/4/2015 – Red Cedar – Menomin Dam – 58" 25.5lbs
- Floy Tag #: 0462
 - 5/20/2006 – Chippewa River – Jim Falls – 53.8" 32.3lbs
 - 6/?/2016 – Mississippi River – Trempeleau – 59"
 - 10 years, 137 miles, 7 dams



Vision Statements

- 2000 Lake Sturgeon Management Plan: “This Lake Sturgeon Management Plan was created to preserve, protect, and restore lake sturgeon populations in Wisconsin for the benefit of the sturgeon resource and all its users”

Main points of group’s discussion regarding vision statement

- Include all sturgeon
- Include habitat
- Science-based management
- Promote
- Stakeholders vs users

This plan’s vision is to:

Maintain, protect, restore, and promote sturgeon populations and their habitats in Wisconsin using science-based research and balanced management for the benefit of the resource and all stakeholders.

Key Sturgeon Management Issues?

- What are your key issues or concerns for sturgeon management in Wisconsin?





Recap Break Out Session #2

Topic	Group 1	Group 2	Group 3		
Invasives	X		X	medium/low	
Funding/allocation	X	X	X	high/high/high	
Habitat loss/restoration/development	X	X	X	low/high/high	
Passage/fragmented habitat & populations/connectivity	X	X	X	medium/medium/high	
Over Exploitation	X				
Climate change	X				
Regulations (knowledge/education/justification/assessment)	X			high	
Fishing methods	X				
Tribal relations/inclusion/management	X				
Priority waters update/rehabilitation/restoration	X		X	low/low	
Stocking genetic integrity/diversity	X			low	
Contaminants/water quality/microplastics	X				
Promotion of resource use/hook & line participation	X	X		low/medium	
Fish diseases/quarantine facilities	X			low	
Law Enforcement		X	X	high/medium	
Population assessments (status/monitoring/evaluation)		X	X	high/high	
Inter-agency cooperation (other states/tribal/federal/etc.)		X		medium	
Encourage advocacy (more Sturgeon for Tomorrow Chapters)		X		medium	
Outreach/awareness/education			X	medium	
Angling opportunities			X	low	
Aquaculture			X	low	
Bait harvest			X	low	



Recap Break Out Session #2

Population assessments (status/monitoring/evaluation)	Section 1	Population assessment and life history monitoring
Habitat loss/restoration/development	Section 2	Habitat protection and enhancement
Passage/fragmented habitat & populations/connectivity	Section 3	Propagation, reintroduction
Priority waters update/rehabilitation/restoration	Section 4	Regulations and harvest
Stocking genetic integrity/diversity	Section 5	Public outreach and participation
Over Exploitation	Section 6	Emerging threats
Regulations (knowledge/education/justification/assessment)	Section 7	Commercialization and scientific use
Fishing methods		
Angling opportunities		
Law Enforcement		
Encourage advocacy (more Sturgeon for Tomorrow Chapters)		
Promotion of resource use/hook & line participation		
Outreach/awareness/education		
Funding/allocation		
Tribal relations/inclusion/management		
Inter-agency cooperation (other states/tribal/federal/etc.)		
Contaminants/water quality/microplastics		
Fish diseases/quarantine facilities		
Climate change		
Invasives		
Bait harvest		
Aquaculture		

Break!!





Section 1: Population Assessment and Life History Monitoring

Objectives from the 2000 plan

- 1.1 Maintain/enhance current sturgeon population assessments
- 1.2 Develop and implement standardized population assessments on all existing populations
- 1.3 Conduct life history research/assessments where needed

Tactics:



Section 2 – Habitat Protection and Enhancement

Objectives from the 2000 plan

- 2.1 Identify critical habitats and habitat requirements for various life stages
- 2.2 Identify barriers and other factors within systems negatively affecting sturgeon populations
- 2.3 Enhance habitat where possible

Tactics:

Adjourn

Thank you for donating your time and ideas to help make Wisconsin's unique sturgeon resource the best it can be.



Send emails to DNRSturgeonPlan@wisconsin.gov